



Transport for NSW

# Beaches Link and Gore Hill Freeway Connection

Chapter 1

Introduction

# 1 Introduction

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This chapter provides an overview of the Beaches Link and Gore Hill Freeway Connection project (the project), including its key features and location.

## 1.1 Overview

The Greater Sydney Commission's *Greater Sydney Region Plan – A Metropolis of Three Cities* (Greater Sydney Commission, 2018a) proposes a vision of three cities where most residents have convenient and easy access to jobs, education and health facilities and services. In addition to this plan, and to accommodate for Sydney's future growth, the NSW Government is implementing the *Future Transport Strategy 2056* (NSW Government, 2018), a plan that sets the 40 year vision, directions and outcomes framework for customer mobility in NSW. The Western Harbour Tunnel and Beaches Link program of works is proposed to provide additional road network capacity across Sydney Harbour and Middle Harbour thereby improving transport connectivity with Sydney's Northern Beaches.

The Western Harbour Tunnel and Beaches Link program of works is a major transport infrastructure program that would make it easier, faster and safer to get around Sydney. As Sydney continues to grow, faster and more reliable trips are essential to reducing congestion and providing new levels of access to jobs, recreation, and services such as schools and hospitals. By creating a western bypass of the Sydney CBD, the Western Harbour Tunnel would take pressure off the Sydney Harbour Bridge, Sydney Harbour Tunnel and ANZAC Bridge; while Beaches Link would create an alternative to the Military Road/Spit Road and Warringah Road corridors to relieve traffic pressure on the North Shore. The program of works has been designed as part of an integrated transport network, which has a focus on new public transport connections and improved journey times and reliability for buses.

The Western Harbour Tunnel and Beaches Link program of works include:

- The Western Harbour Tunnel and Warringah Freeway Upgrade project which comprises a new tolled motorway tunnel connection across Sydney Harbour, and an upgrade of the Warringah Freeway to integrate the new motorway infrastructure with the existing road network and to connect to the Beaches Link and Gore Hill Freeway Connection project
- The Beaches Link and Gore Hill Freeway Connection project which comprises a new tolled motorway tunnel connection across Middle Harbour from the Warringah Freeway and Gore Hill Freeway to Balgowlah and Killarney Heights and including the surface upgrade of Wakehurst Parkway from Seaforth to Frenchs Forest and upgrade and integration works to connect to the Gore Hill Freeway at Artarmon.

The components of the Western Harbour Tunnel and Beaches Link program of works are shown in Figure 1-1.

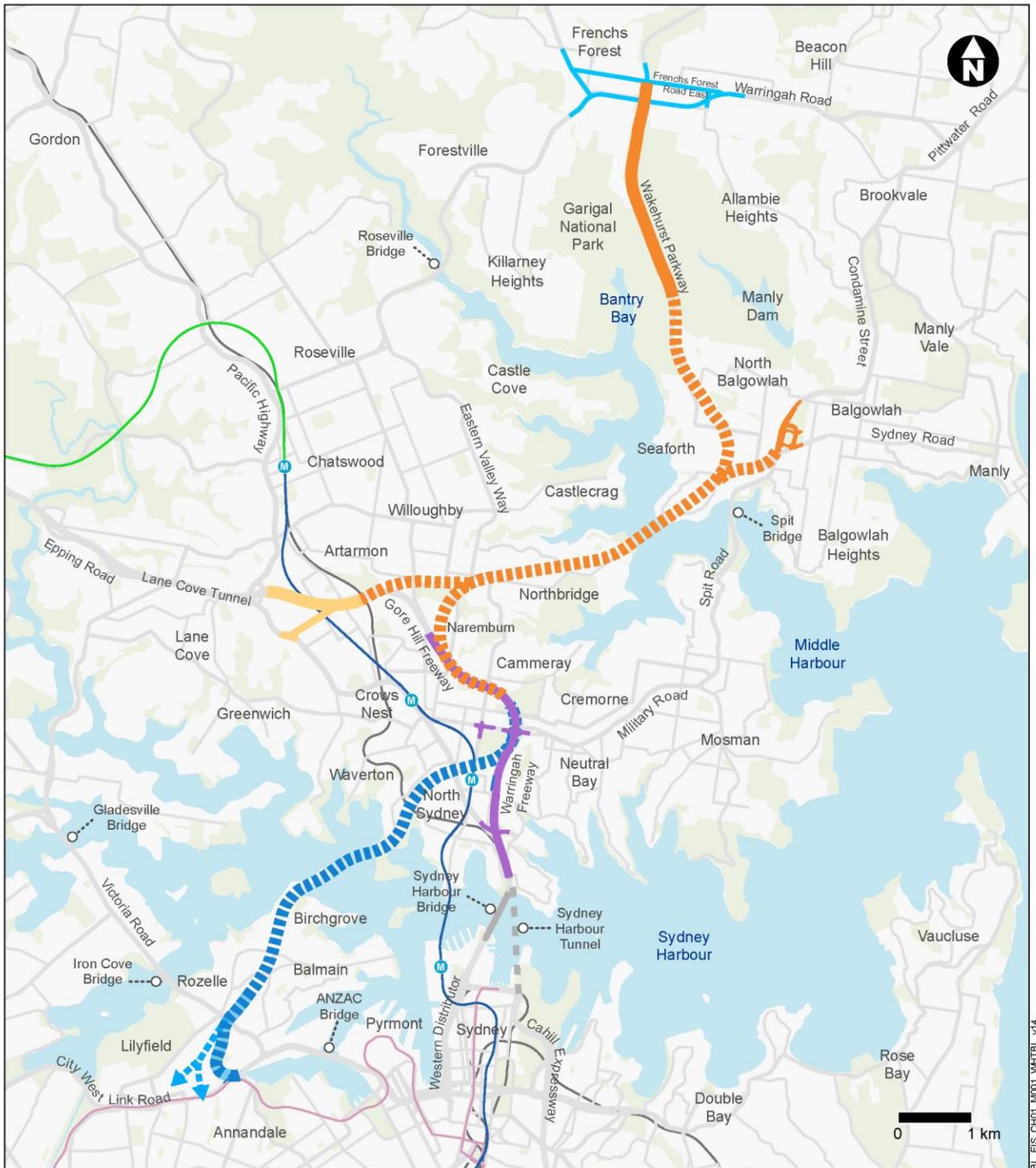
Delivery of the Western Harbour Tunnel and Beaches Link program of works would unlock a range of benefits for freight, public transport and private vehicle users. It would support faster travel times for journeys between the Northern Beaches and areas south, west and north-west of Sydney Harbour. For example, with the combined program of works, journeys from Dee Why to Sydney Kingsford Smith Airport are expected to be 56 minutes faster. Delivering the program of works would also improve the resilience of the motorway network, given that each project provides an alternative to heavily congested existing harbour crossings. These key benefits are discussed further in Chapter 3 (Strategic context and project need).

The project would provide an opportunity to improve travel times on peak express bus services by re-directing bus services from the Northern Beaches through the new motorway to North Sydney, the north west and the Sydney Central Business District (CBD). In addition, it would provide a fast, reliable link between the Northern Beaches and other key centres including St Leonards and Macquarie Park via the direct Gore Hill Freeway connection.

It would also provide an opportunity to introduce new express bus services that would use the new motorway and road connections to deliver increased direct public transport access between strategic centres across the region, reducing reliance on private vehicle travel.

The Western Harbour Tunnel and Warringah Freeway Upgrade project and the Beaches Link and Gore Hill Freeway Connection project are subject to separate and coordinated environmental assessment and approval processes.

This environmental impact statement relates to the Beaches Link and Gore Hill Freeway Connection project.



Indicative only – subject to design development

**Legend**

**Operational features**

- Beaches Link
- Gore Hill Freeway Connection
- Western Harbour Tunnel
- Warringah Freeway Upgrade
- M4-M5 Link tunnel fitout and commissioned as part of Western Harbour Tunnel

**Connecting projects**

- M4-M5 Link connections (indicative)
- Northern Beaches Hospital road upgrade project (Completed 2020)

**Other projects**

- Sydney Metro City & Southwest (under construction)
- Sydney Metro Northwest

**Existing rail network**

- Suburban rail/Sydney Trains
- Light rail

**Figure 1-1 The Western Harbour Tunnel and Beaches Link program of works**

## 1.2 The project

Transport for NSW is seeking approval under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979* to construct and operate the Beaches Link and Gore Hill Freeway Connection project, which would comprise two components:

- Twin tolled motorway tunnels connecting the Warringah Freeway at Cammeray and the Gore Hill Freeway at Artarmon to the Burnt Bridge Creek Deviation at Balgowlah and Wakehurst Parkway at Killarney Heights, and an upgrade of Wakehurst Parkway (the Beaches Link)
- Connection and integration works along the existing Gore Hill Freeway and surrounding roads at Artarmon (the Gore Hill Freeway Connection).

The project is an integrated transport solution that would address urban congestion on Sydney's road network. It would take pressure off Spit Bridge and Military Road – improving amenity in Mosman, Cremorne and Neutral Bay and relieving traffic flows on Warringah Road, Roseville and through the suburbs of Willoughby and Northbridge. It would provide direct access from the Northern Beaches to the Warringah Freeway for fast and reliable access to North Sydney, the Sydney CBD and beyond. It would also provide a fast, reliable link between the Northern Beaches and other key centres including St Leonards and Macquarie Park via the direct Gore Hill Freeway connection. For public transport there would be opportunity for express buses within the Beaches Link tunnel, additional express bus services along Military Road and improved connections to the Sydney Trains and new Sydney Metro rail networks.

A detailed discussion of the project benefits is presented in Chapter 3 (Strategic context and project need).

Key features of the Beaches Link component of the project are shown in Figure 1-2 and would include:

- Twin mainline tunnels about 5.6 kilometres long and each accommodating three lanes of traffic in each direction, together with entry and exit ramp tunnels to connections at the surface. The crossing of Middle Harbour between Northbridge and Seaforth would involve three lane, twin immersed tube tunnels
- Connection to the stub tunnels constructed at Cammeray as part of the Western Harbour Tunnel and Warringah Freeway Upgrade project
- Twin two lane ramp tunnels:
  - Eastbound and westbound connections between the mainline tunnel under Seaforth and the surface at the Burnt Bridge Creek Deviation, Balgowlah (about 1.2 kilometres in length)
  - Northbound and southbound connections between the mainline tunnel under Seaforth and the surface at the Wakehurst Parkway, Killarney Heights (about 2.8 kilometres in length)
  - Eastbound and westbound connections between the mainline tunnel under Northbridge and the surface at the Gore Hill Freeway and Reserve Road, Artarmon (about 2.1 kilometres in length)
- An access road connection between the Burnt Bridge Creek Deviation and Sydney Road including the modification of the intersection at Maretimo Street and Sydney Road, Balgowlah
- Upgrade and integration works along the Wakehurst Parkway at Seaforth, Killarney Heights and Frenchs Forest, through to Frenchs Forest Road East
- New and improved open space and recreation facilities at Balgowlah
- New and upgraded active transport infrastructure (pedestrian and cyclist facilities)
- Ventilation outlets and motorway facilities at the Warringah Freeway in Cammeray, the Gore Hill Freeway in Artarmon, the Burnt Bridge Creek Deviation in Balgowlah and the Wakehurst Parkway in Killarney Heights

- Operational facilities, including a motorway control centre at the Gore Hill Freeway in Artarmon, and tunnel support facilities at the Gore Hill Freeway in Artarmon and Wakehurst Parkway in Frenchs Forest
- Other operational infrastructure including groundwater and tunnel drainage management and treatment systems, surface drainage, signage, tolling infrastructure, fire and life safety systems, roadside furniture, lighting, emergency evacuation and emergency smoke extraction infrastructure, Closed-Circuit Television (CCTV) and other traffic management systems.

Key features of the Gore Hill Freeway Connection component of the project are shown in Figure 1-3 and would include:

- Upgrade and reconfiguration of the Gore Hill Freeway between the T1 North Shore & Western Line and T9 Northern Line and the Pacific Highway
- Modifications to the Reserve Road and Hampden Road bridges
- Widening of Reserve Road between the Gore Hill Freeway and Dickson Avenue
- Modification of the Dickson Avenue and Reserve Road intersection to allow for the Beaches Link off ramp
- Upgrades to existing roads around the Gore Hill Freeway to integrate the project with the surrounding road network
- Upgrade and inclusion of traffic lights of the Dickson Avenue and Pacific Highway intersection
- New and upgraded active transport infrastructure (pedestrian and cyclist facilities)
- Other operational infrastructure, including surface drainage and utility infrastructure, signage and lighting, CCTV and other traffic management systems.

A detailed description of the project is provided in Chapter 5 (Project description). Construction of the project is described in Chapter 6 (Construction work).

Subject to the project obtaining planning approval, construction is anticipated to commence in 2023 and is expected to take around five to six years to complete.

### 1.3 Project location

The project would be located within the North Sydney, Willoughby, Mosman and Northern Beaches local government areas, connecting Cammeray in the south with Killarney Heights, Frenchs Forest and Balgowlah in the north. The project would also connect to both the Gore Hill Freeway and Reserve Road in Artarmon in the west. The regional context of the project is shown in Figure 1-1. The local context of the project is shown in Figure 1-2 and Figure 1-3.

Commencing at the Warringah Freeway at Cammeray, the mainline tunnels would pass under Naremburn and Northbridge, then cross Middle Harbour between Northbridge and Seaforth. The mainline tunnels would then split under Seaforth into two ramp tunnels and continue north to the Wakehurst Parkway at Killarney Heights and north-east to Balgowlah, linking directly to the Burnt Bridge Creek Deviation to the south of the existing Kitchener Street bridge.

The mainline tunnels would also have on ramps and off ramps from under Northbridge connecting to the Gore Hill Freeway and Reserve Road east of the existing Lane Cove Tunnel. Surface works would also be carried out at the Gore Hill Freeway in Artarmon, Burnt Bridge Creek Deviation at Balgowlah and along the Wakehurst Parkway between Seaforth and Frenchs Forest to connect the project to the existing arterial and local road networks.

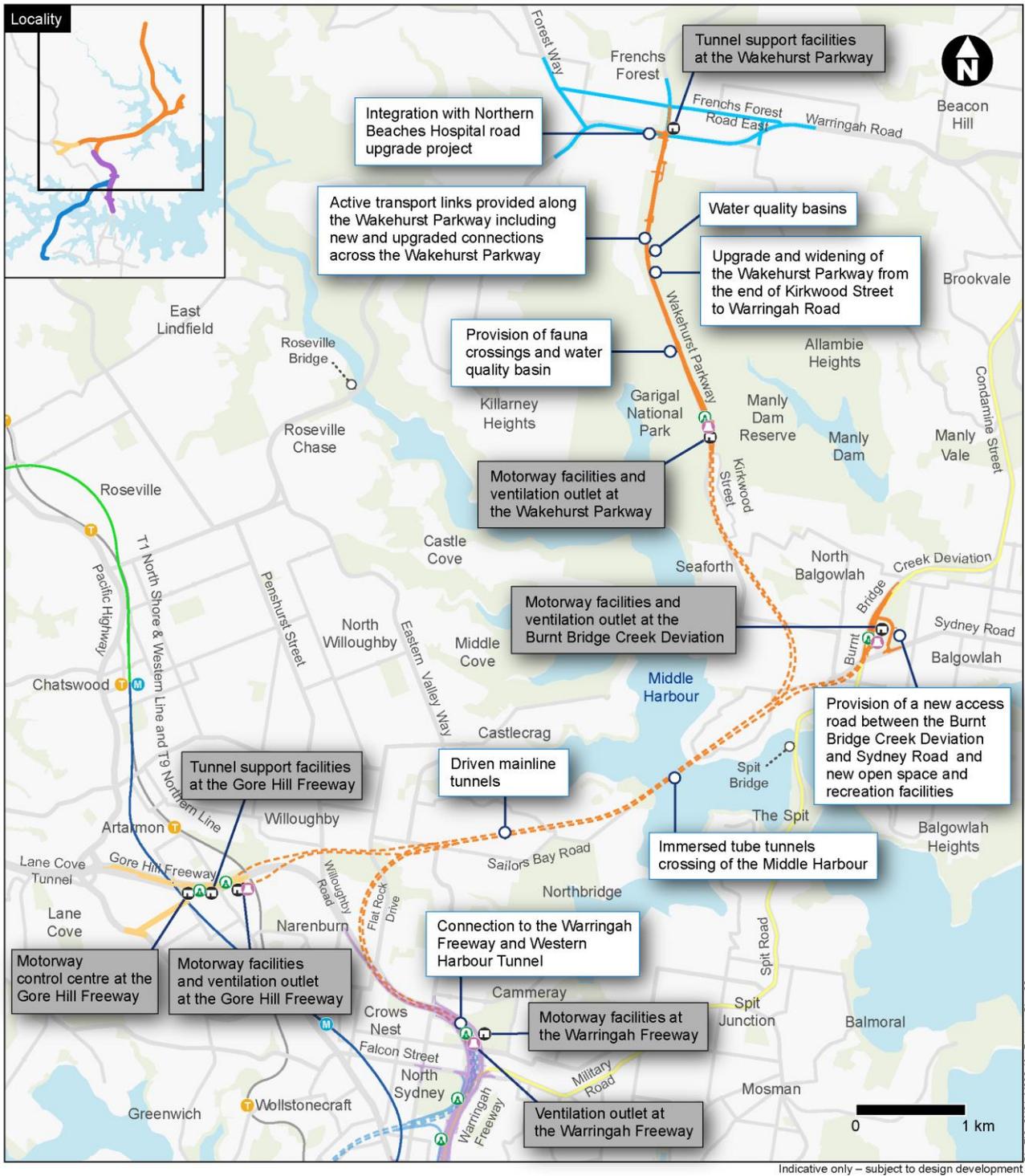
## 1.4 Purpose of this environmental impact statement

This environmental impact statement has been prepared in accordance with the relevant provisions of the *Environmental Planning and Assessment Act 1979*. It has been prepared to address the environmental assessment requirements issued by the Secretary of the NSW Department of Planning, Industry and Environment (formerly Department of Planning and Environment) on 15 December 2017 and reissued on 22 April 2020, and the relevant provisions of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.

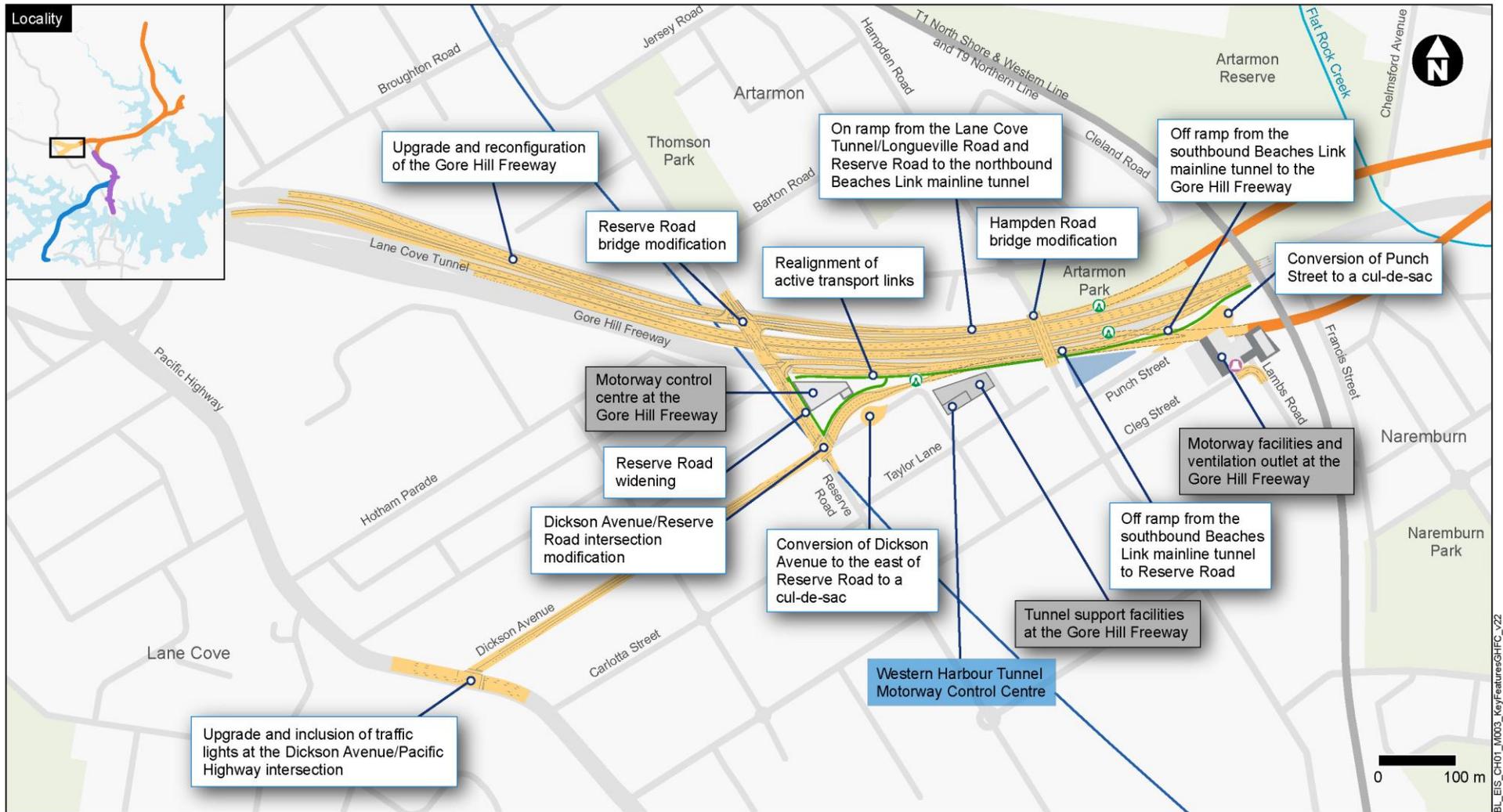
In accordance with Division 5.2 of the *Environmental Planning and Assessment Act 1979*, this environmental impact statement presents an assessment of potential environmental issues identified during the planning and assessment of the project. The assessment considers the area directly or indirectly affected by construction and operation of the project, as relevant to each technical assessment.

This environmental impact statement will be placed on public exhibition, which will provide an opportunity for the community, government agencies and other interested parties to comment on the project. Transport for NSW will consider this feedback and respond to issues raised in a submissions report. The assessment process for the project is discussed further in Chapter 2 (Assessment process).

The Secretary's environmental assessment requirements are detailed in Appendix A, along with a reference to where these have been addressed in this environmental impact statement.



**Figure 1-2 Key features of the Beaches Link component of the project**



**Figure 1-3 Key features of the Gore Hill Freeway component of the project**